Pest Update (Aug 15, 2012)

Vol. 10, no. 23

**John Ball, Forest Health Specialist SD Department of Agriculture,
Extension Forester SD Cooperative Extension**

Email: john.ball@sdstate.edu
Phone: 605-688-4737
Samples sent to: John Ball
Plant Science Department
rm 230, Agriculture Hall, Box 2207A
South Dakota State University
Brookings, SD 57007-0996

Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem. **Walnut samples may not be sent in from any location – please provide a picture!**

Available on the net at:
http://sdda.sd.gov/Forestry/Educational-Information/PestAlert-Archives.aspx

In this issue **pg**

Plant development

While our warm temperatures have sped up plant development for much of the season, the dry weather has slowed some fruit development. The plums are just ripening in some East River locations, a week or two later than normal. This picture is a Toka plum that was a little later and smaller this year.

Current concerns

Mountain pine beetle update. We are just beyond the peak of the adult emergence from their dead hosts but there will still be a significant population of beetles attacking trees throughout the remainder of August and into September, We often see new attacks extending until late September and this is one reason the Department of Agriculture foresters and their crews do not begin marking the newly infested trees for removal or treatment until October 1. If you start marking too early, you'll just have to go back and mark again as new attacks will continue to occur.

You can recognize the new attacks, not by changes in the canopy of the tree – the needles will not turn color on infested tree till next spring or summer – but by the appearance of pitch globs. Ponderosa pine trees defend themselves from attacks by producing resin to "pitch" adult beetles out as they try to burrow in. You can sometimes find "pitch outs" unsuccessful attacks, with the beetle still stuck in the whitish glob of resin. However, in the vast majority of attacks, the lower 15 to 35 feet of the tree is covered with dozens of reddish-brown pitch masses extending around the trunk, evidence of the beetles success in tunneling into the inner bark of the tree. You might also find reddish-brown boring dust in the bark crevices and surrounding the base of the tree. This dust is created as the beetles bore through the bark and into the tree.

Once the beetles have entered the inner bark, they mate; the female lays eggs along the side of the gallery created by the tunneling adults. At this time if you peel the bark off a successfully attacked tree, you probably find tunnels several inches long or more carved into the inner bark and usually running parallel to the grain of the wood. . The eggs, invisible to the naked eye, will begin to hatch soon

and tiny white, legless larvae will start tunneling perpendicular to the parent gallery. This tunneling by the larvae and the adults will girdle the tree and kill it with a year. The insects are aided in this effort by blue-stain fungi that they carry with them to their new host. The fungi provide some nourishment to the developing larvae and also injure the tree resulting in a more rapid death than might occur from the beetle activity alone.

Once the attacks are completed and the infested trees are identified, work can commence on felling and treating these hosts as a means of reducing the beetle population and spread in 2013. There will be a series of workshops to help landowners identify the newly infested trees and separate these attacks from those made by the mountain pine beetle cousins, the pine engraver beetle and the turpentine beetle, as well as the treatments that can done on infested trees. The workshop schedule is:

September 6: 6-8 pm	Outdoor Campus, 4130 Adventure Trail, Rapid City
September 7: 6-8 pm	Hill City High School Theater, Hill City
September 8: 9-11am	Crazy Horse Memorial
September 8: 3-5 pm	Brownsville Fire Hall, Nemo

All presentations are free and open to the public.

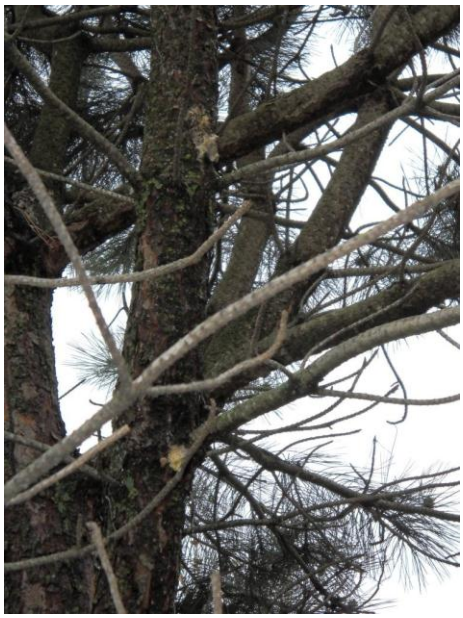
E-samples

I received this great picture of hackberry nipple gall which is caused by a small psyllid (a tiny insect). The galls are created by the immature insects as they feed and despite the bumps being unsightly, they really do little harm to the tree. The biggest problem is starting to appear now. The adults – resemble very small, almost pin-size, cicadas – are begin to emerge and are attract to lights so often find their way into homes during late summer and fall. They require no more control than a vacuum to suck up their dead bodies as they will not live long in the home nor cause any harm to house plants.

I received a picture of maple bladder galls appearing on a silver maple leaf. These galls are the work of the maple bladder gall mite. The mite moves from the bark to the expanding leaves and feeds on the underside of the foliage. The result is a colorful gall forming on the upper side of the leaves, usually beginning as a green bump but then becoming red, yellow and black as the season

progresses. The galls may look as though they are a serious threat to the tree but they are almost insignificant in the injury they cause even if the entire leaf is covered with them. No control is recommended and very few are even effective.

I received even more pictures of oak galls – this must be a great year for them. As mentioned in last week's *Update* generally these galls do little harm to the tree (though occasionally heavily infested shoots can experience dieback. I also have people confuse the galls with acorns and am frequently asked in the spring about "acorns" that are not falling from the tree – these are the old galls.



I received this picture of Zimmerman pine moth damage this week. A common symptom of attack is pitch masses – globs of sticky creamy-brown pitch – found near where the branches connect with the trunk. I was out at windbreak earlier last week and most of the trees were covered with these pitch masses so it appear the insect numbers are on the upswing again. We had a major outbreak of this insect back in the early 90s and again in early 2000s, seem like when we have drought we have more pine moths. Infested trees are easy to spot from their broken branches and distorted stems. The insect is most commonly found in Austrian and ponderosa pines though occasionally Scotch pine is attacked. There are several different species of Zimmerman pine moth in South Dakota and while they appear similar they have different flight periods hence control times differ. The best two times to treat infested trees, regardless of the moth involved, are at the end of May and the middle of August. (About now) Insecticides containing permethrin are effective but the spray must reach the trunk, not just the foliage so a high-pressure spray is required.

Samples received

Dewey County **What is wrong with this ponderosa pine tree? There are large pitch masses on the trunk and the branches are breaking off.**

This is the work of the Zimmerman pine moth. The larvae burrow into the trunk at the juncture between the trunk and the branch. This weakens the trunk and branch resulting in breakage. The burrowing activity also results in the

formation of pitch masses. There are three different species of Zimmerman pine moth in our state, each with a slightly different life cycle and treatment window. The best approach to management is to apply a permethrin pesticide now and repeat at the end of April. The pesticide should be applied so that the bark is covered, not just the needles.

Lake County **Why are all these ants in these cottonwood stems?**

This is the carpenter ant and while they do not feed on wood (they eat other insects and honeydew) they do tear out chips of wood to form their nests. They can cut out enough wood to kill young trees or cause them to break. The best control is carbaryl dust, commonly sold as Sevin.

Tripp County **Here is a spruce sample. The discoloration appears to be moving down the tree.**

The yellowing needle tips are an indicator of drought-stress but the stippling (small spots on the needles) and fine webbing indicates a severe spider mite infestation this past spring. We are coming up to the time for spider mite control – when silver maple leaves being to turn color – and I will have a treatment article out at that time.

Walworth County **Curt's oak tree has hollow branches and there are leaves with galls on them. The other tree sample has galls as well.**

The oak has hedgehog gall that was mentioned in last week's *Update*. This generally does not harm the tree or the twig galls that are also on the tree. I say "generally" as sometimes there are enough twig galls on a tree that the twigs and shoots suffer some tip dieback. Unfortunately there is no effective control. The leaf galls on the other tree was hackberry nipple gall and these do not harm the tree at all but certainly make it look ugly. I was not able to determine what was hollowing out the twigs on the oak.